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April 29, 2004

Leon Blashock, District Ranger
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Marienville Ranger District
HC 2, Box 130
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Dear Mr. Blashock:

This responds to your letter of January 16, 2004, requesting Fish and Wildlife Service review of the Spring Creek Biological Assessment (BA), which is located in Appendix C of the Spring Creek DEIS. The following comments are provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) to ensure the protection of endangered and threatened species.

On June 1, 1999, the Fish and Wildlife Service issued a biological opinion (BO) regarding the impacts of forest management and other activities that would be implemented under the 1986 Land and Resource Management Plan (Forest Plan) for the Allegheny National Forest (ANF). The Service's programmatic BO evaluated the effects of Forest Service management program activities, including timber management, on the bald eagle (*Haliaeetus leucocephalus*), Indiana bat (*Myotis sodalis*), clubshell mussel (*Pleurobema clava*), and northern riffleshell mussel (*Epioblasma torulosa rangiana*).

In the programmatic biological opinion, we determined that the implementation of projects predicated upon the Forest Plan is not likely to jeopardize the continued existence of the bald eagle, Indiana bat, or clubshell mussel. We also determined that implementation of the Forest Plan and most projects predicated upon it (with the exception of boating facility operation) are not likely to jeopardize the continued existence of the northern riffleshell. A jeopardy determination was made for the operation of boating facilities with respect to the northern riffleshell mussel, and reasonable and prudent alternatives were identified to avoid jeopardy to this species.

Although the Service has provided a programmatic biological opinion to the Forest Service for the ANF Forest Plan, the Service will review, as they are developed, site-specific projects that the Forest Service determines "may affect" federally listed species. The Service will determine if any effects will occur as a result of a site-specific project in a manner, or to an extent, not evaluated or previously disclosed and discussed in the Service's programmatic BO. We consider this site-specific project analysis to be "Tier 2" of the consultation process, with the programmatic consultation (and resulting BO) constituting the "Tier 1" consultation. Our project-specific (Tier 2) consultations will focus on: 1) compliance with the reasonable and

prudent measures and associated terms and conditions in the programmatic BO; 2) consistency with the scope and effects previously analyzed in the programmatic BO; 3) project-specific incidental take vs. take estimated in the programmatic BO; and 4) project-specific reasonable and prudent measures and associated terms and conditions (i.e., for non-jeopardy determinations). In the event of a "may affect" but "not likely to adversely affect" determination for a specific project that is consistent with the programmatic BO, no further evaluation by the Service is necessary and section 7(a)(2) consultation will be considered complete for that project (e.g., via a concurrence letter documenting the conclusion of informal consultation).

We have reviewed the information contained in the Spring Creek BA, which describes the potential effects of the proposed project on federally listed species. Most of the proposed project types (e.g., timber harvesting, trail construction) and their effects were discussed and evaluated in the Forest Plan BA and programmatic BO. Therefore, this consultation qualifies as a "Tier 2" consultation under the Forest Plan BO.

The proposed ATV campground is a project type (i.e., construction of new recreational facilities) that was not addressed in the Forest Plan BA. Therefore, potential take due to the construction or expansion of recreational facilities was not considered or authorized in the programmatic BO. A seasonal restriction on tree cutting to avoid potential adverse effects to federally listed species will allow this project to proceed under the scope of this consultation.

Forest Service Effect Determinations

The Forest Service initially determined that the federally listed Indiana bat, bald eagle, small-whorled pogonia (*Isotria medeoloides*), clubshell mussel, and northern riffleshell mussel occur or may occur in the project area or supporting watersheds.

Based on species surveys, and a further assessment of the potential effects of this project on listed species, the Forest Service reached a "no effect" determination for the small-whorled pogonia, clubshell, and northern riffleshell; a "may affect, not likely to adversely affect" determination for the bald eagle; and a "may affect, likely to adversely affect" determination for the Indiana bat. You requested our review of, and concurrence with, these effect determinations. Based on our review of the project BA and programmatic BO, our comments on your determinations follow.

*Small-whorled Pogonia*

The BA (p. 37) indicates that all sites proposed for treatment were surveyed, but that no small-whorled pogonias were found. Considering the results of these surveys, we concur with the Forest Service's "no effect" determination.

*Clubshell and Northern Riffleshell*

The clubshell and northern riffleshell are known to occur in the Allegheny River; however, the Spring Creek project area does not drain into the Allegheny River. Additionally, there are no perennial streams within the Spring Creek project area that would provide suitable habitat for

these species; therefore, the Forest Service reached a "no effect" determination. We concur with this determination.

*Bald Eagle*

Based on available information and project reconnaissance from 1996 to the present, no bald eagle nest sites are located in or near the proposed project area. The closest known bald eagle nest site is located approximately ten miles away from the project area. If an eagle nest were found in the project area, further consultation on this project would be necessary.

Suitable bald eagle foraging habitat is available in the project area. Eagles have been sporadically sighted perching and foraging along the Spring Creek stream corridor, the Clarion River, at Owls Nest ponds, and at Buzzard Swamp ponds (BA, p. 32). Proposed project activities (timber harvesting, gravel pit construction, road maintenance, etc.) will take place at least 100 feet from the Spring Creek stream corridor, one mile from the Clarion River, and three miles from Buzzard Swamp ponds (BA, p. 33). Due to the distance of the project area from known bald eagle nest sites, and the infrequent use of the project area for foraging, we concur with your determination that implementation of the preferred alternative is not likely to adversely affect the bald eagle.

*Indiana Bat*

The Forest Service determined that implementation of this project "may affect, is likely to adversely affect" the Indiana bat. Given the nature of activities associated with the proposed project, we concur with your determination that incidental take of Indiana bats is possible within the analysis areas. As described in the Service's programmatic BO, we believe that adverse effects are likely to occur to the Indiana bat from timber harvesting, recreation activities, and gravel pit construction/expansion under the Forest Service's management program activities. However, based on the implementation of reasonable and prudent measures and associated terms and conditions from the programmatic BO, and the conservation measures proposed with the Spring Creek project that will minimize the impact of any incidental take, we have concluded that activities associated with the Spring Creek project will not result in adverse effects to the Indiana bat beyond those that were previously disclosed and discussed in the Service's programmatic BO.

The following biological opinion is based on potential adverse effects to the Indiana bat from new gravel pit construction/expansion, recreation activities (trail construction), and the removal of suitable habitat during timber harvesting associated with the Spring Creek project. This Tier 2 BO identifies the incidental take anticipated due to implementation of the Spring Creek project (Alternative 3 with Alternative 2 recreation activities), and the cumulative total of incidental take that has occurred (Table 2).

Description of the Proposed Action

The proposed project involves various timber management activities, reforestation practices, wildlife habitat improvement activities, recreation activities, and transportation/road activities

within the Spring Creek Project area (Table 10, pp. 46-47 of the BA) in Highland, Spring Creek, and Millstone Townships in Elk County, and Howe and Jenks Townships in Forest County, Pennsylvania. The project area is approximately 56,093 acres, of which 71% (39,692 acres) is National Forest System lands; 18% (9,558 acres) is State Game Lands; and 11% (6,843 acres) is privately owned. Currently, 80% of the project area is classified as pole timber and saw timber age class, and 10% is in the seedling/sapling age class (BA, p. 1-2).

Four alternatives were assessed in the BA. The Forest Service has selected Alternative 3 with Alternative 2 recreation activities as the preliminary preferred alternative; therefore, this biological opinion focuses on the effects expected due to implementation of this alternative. The preferred alternative involves a variety of timber harvest treatments, wildlife habitat improvement work, and understory treatments, with goals of maintaining travel corridors and meeting the forest plan objectives for age class distribution. Additionally, the recreation activities under Alternative 2 will help meet user demands. Table 1 summarizes those activities proposed under the preferred alternative that will affect potential Indiana bat habitat.

Specifically, 5627 acres of timber harvesting will occur, including: 1524 acres of shelterwood seed cuts, 2165 acres of thinning, 63 acres of selection harvest, 1728 acres of shelterwood removal, 97 acres of clearcut, and 50 acres of selection cuts for scenic enhancement. Included in this total are 670 acres of salvage harvests due to mortality, and 1548 acres of salvage harvests due to wind-throw. Fencing, which is expected to facilitate the reforestation of 1336 acres, is expected to result in minimal tree removal, and will be done when Indiana bats are not expected to be present (P. Thurston, Allegheny National Forest, personal communication; 4-23-04).

In addition to timber management activities, eight acres of forested habitat will be affected by gravel pit expansion for road betterment projects. Under the preferred alternative, no new road construction is proposed.

Recreation activities will result in 27.2 acres of single-tree selection harvests for trailhead construction (six acres), equestrian trail construction (≤ 21 acres), and snowmobile trail construction (0.2 acres). The Forest Service indicated that removal of trees during trail construction is done on an as-needed basis, and that seasonal restrictions on tree clearing will be implemented to ensure that incidental take does not exceed that estimated in the programmatic BO.

Construction of an ATV campground will result in the removal of five acres of trees. Because construction of recreational facilities is not included in the programmatic BA or BO, take is not authorized for this type of activity. Therefore, to avoid potential adverse effects to federally listed species, all tree clearing related to this activity will occur when Indiana bats are not expected to be present on the Forest.

Table 1. Forest impacts resulting from the preferred alternative.

| Spring Creek Project Activities -- Preferred Alternative | | | | |
|---|---|---|---|---|
| **Activity** | **Total Activity Area (acres)** | **Impacted Forested Acres** | **Take Category** | **Type of Harvest** |
| Shelterwood Seedcut | 1016 | 1016 | Shelterwood Seed/Prep | Green Partial |
| Overstory Removal Cut | 141 | 141 | Shelterwood Removal | Green Final |
| Two-Age Seed Prep Harvest | 19 | 19 | Shelterwood Seed/Prep | Green Partial |
| Thinning Harvest | 1088 | 1088 | Thinning | Green Partial |
| Salvage Thinning-Mortality | 589 | 589 | Thinning | Salvage Partial |
| Single Tree Selection | 63 | 63 | Selection Cut | Green Partial |
| Wind-throw Salvage | 488 | 488 | Thinning | Salvage Partial/Final |
| Wind-throw Salvage Shelterwood Seedcut | 457 | 457 | Shelterwood Seed/Prep | Salvage Partial |
| Wind-throw Salvage Overstory Removal | 114 | 114 | Shelterwood Removal | Salvage Final |
| Wind-throw Salvage Shelterwood Removal | 457 | 457 | Shelterwood Removal | Salvage Final |
| Wind-throw Salvage Two-Age Prep | 32 | 32 | Shelterwood Seed/Prep | Salvage Partial |
| Mortality/ Catastrophic Clearcut | 81 | 81 | Clearcut | Salvage Final |
| Shelterwood Removal | 1016 | 1016 | Shelterwood Removal | Green Final |
| Fence Construction | 1336 | <1 | Selection Cut | Single Tree Selection |
| Regenerate Aspen | 16 | 16 | Clearcut | Green Final |
| Construct Equestrian Trail | 21 | ≤21[1] | Trail - Pedestrian | Single Tree Selection |
| Construct Trailheads | 6 | 6 | Trail - Pedestrian | Single Tree Selection |
| Enhance Scenic Quality | 50 | 50 | Selection Cut | Single Tree Selection |
| ATV Campground Addition | 5 | 5[2] | NA | Single Tree Selection |
| Realign Snowmobile Trail | 0.2 | 0.2 | Trail-Motorized Winter | Single Tree Selection |
| Gravel Pit Expansion | 8 | 8 | Road Betterment | Single Tree Selection |
| **TOTAL** | | **5668.2** | | |

[1] This exceeds the take level for trail construction in the programmatic BO; therefore, a seasonal restriction on tree removal will be implemented (see Terms and Conditions).
[2] This activity is not addressed in the programmatic BO; therefore, a seasonal restriction on tree removal will be implemented (see Terms and Conditions).

All the above activities will affect a total of 5668.2 forested acres, of which 5642.2 acres are counted toward the cumulative annual incidental take as outlined in Table 6 (p. 67) of the programmatic BO. Five acres of impacts due to ATV campground construction, and up to 21 acres of impacts due to equestrian trail construction are not included in this total because tree removal will be seasonally restricted, thereby avoiding potential adverse effects. The types of timber harvest activities proposed were described on pages 7-8 of the programmatic BO, and the effects of timber harvesting on the Indiana bat were discussed on pages 46 and 65 of the programmatic BO. Trails were described on page 10 of the programmatic BO, and the effects of trail activities were described on pages 46 and 48 of the programmatic BO. Road construction activities were described on page 9 of the programmatic BO, and were analyzed on pages 47-48 of the programmatic BO.

The Forest Service has proposed to implement the following project conservation measures (summarized from the BA, pp. 18-19), based on the presence of suitable Indiana bat habitat in the project area, and the assumption that the habitat is occupied by this species.

- Retain all shagbark and shellbark hickories (live, dead and dying), regardless of size, in partial and final harvest cutting units (green and salvage units).

- Retain 4-6 live den trees per acre. Where an inadequate number of live trees occur, retain older, larger trees, especially those with old wounds and broken limbs.

- Mark for retention a clump approximately 0.25 acre in size for every 5 acres harvested. Where possible, clumps of trees in a variety of sizes should contain any or all of the following: den trees, snags, oak/hickory, conifers, minority, and/or mast species and a variety of tree sizes. The Forest Service will protect these clumps and note the clumps on the sale area map.

- For both partial and final harvests in green units, retain all snags. Retain at least 8-15 live trees ≥ 9 inches d.b.h. per acre in final harvest units, and at least 16 live trees ≥ 9 inches d.b.h. per acre in partial harvest units.

- Live residual trees to be retained will be Class 1 or Class 2 trees (Romme *et al.* 1995), or other trees exhibiting or likely to develop characteristics preferred by Indiana bats (e.g., exfoliating bark).

- For partial/intermediate harvests in healthy stands, reduce canopy closure to >54%.

- Designate and retain living residual trees in the vicinity of one third of all large diameter snags with exfoliating bark to provide them with partial shade in summer.

- If a new roost is identified during implementation of the selected alternative, the following mitigation measures will be implemented.

  In order to minimize incidental take of roosting bats, all known roost trees on the ANF will be protected until such time as they no longer serve as a roost (e.g., loss of

exfoliating bark or cavities, blown down or decay). In the event that it becomes absolutely necessary to remove a known Indiana bat roost tree, such a removal will be conducted through consultation with FWS, during the time period when the bats are likely to be in hibernation (November 15 through March 15). Trees identified as immediate threats to public safety may, however, be removed at any time following consultation with the FWS. Such removal, however, will be a last resort, after other alternatives (such as fencing the area, etc.) have been considered and deemed unacceptable.

Activities within a 1.5-mile radius of Indiana bat maternity sites shall be subject to further consultation. Such activities include those, which may affect the Indiana bat or alter its habitat (e.g., by removing potential roost trees or altering percent canopy closure), such as timber harvesting, road construction, trail construction, and federal oil and gas development. In addition, if an Indiana bat maternity site is found on the ANF, the Forest Service shall consult with the FWS to determine/develop standards and guidelines and/or a conservation plan to protect and manage the site.

Other proposed activities associated with the preferred alternative are not expected to remove suitable Indiana bat habitat, or result in direct or indirect effects on, or take of, the Indiana bat. These activities include wildlife habitat improvement projects, herbicide treatments, reforestation activities, road improvement and decommissioning projects, and stream bank planting.

Status of the Species

Species description, life history, population dynamics, status and distribution of the Indiana bat are fully described on pages 21 to 36 of the programmatic BO, and are hereby incorporated by reference. New information on the status of the Indiana bat obtained since the Forest Plan and programmatic BO follow.

A biennial survey was conducted on Indiana bat Priority I hibernacula since the issuance of the Service's programmatic BO. Approximately 102,870 Indiana bats were counted during surveys conducted in 2000 and 2001. This compares to the 115,885 Indiana bats that were estimated in 1999 at the same locations (Richard Clawson, Missouri Department of Conservation, *in litt*. 2001 -- as presented at the Indiana Bat Symposium held in Lexington, Kentucky, March 29-31, 2001).

In Pennsylvania, an Indiana bat hibernaculum was located in January of 2000 in an abandoned limestone mine in Armstrong County, approximately 50 miles southwest of the ANF. During a survey of the mine, 67 Indiana bats were located; however, additional surveys of this extensive mine system are needed to determine the extent of this wintering Indiana bat population. Another Indiana bat hibernaculum was recently located in Lawrence County (southwest of the ANF). A survey of this abandoned limestone mine in 2001 revealed the presence of 21 Indiana bats. In February of 2003, the Pennsylvania Game Commission documented the presence of 765 Indiana bats at the Canoe Creek mine in Blair County, approximately 75 miles southeast of the ANF. In February of 2001, the Indiana bat count at the Canoe Creek mine was 604 bats.

Terms and conditions from the programmatic BO (p. 73-75, item 5), describe monitoring procedures for the Forest Service to use to determine use of the ANF by Indiana bats. Between 1998 and 2003, 236 sites were surveyed (i.e., mist-netted) for bats on the ANF. In addition, 123 of these sites were also sampled using Anabat detectors. The mist net survey protocol from the draft Indiana Bat Recovery Plan has been used, and in some cases, sampling efforts exceeded those outlined in the protocol. One male Indiana bat was captured on the ANF in 1998, and another male Indiana bat was captured on private land adjacent to the ANF in 2001.

Between 1998 and 2001, potential Indiana bat vocalizations were detected at 16 of 123 Anabat sampling sites. Positive detection of bats with this equipment could form the basis of a presumption of Indiana bat presence. Recent studies indicate that the echo-location calls of Indiana bats can be distinguished from other *Myotis* bats. While the system definitely shows promise, it still requires substantial development before it can reliably determine whether Indiana bat vocalizations were detected. At this time, the Service does not believe that this technique alone (i.e., without positive mist-net survey results) is sufficient to determine whether Indiana bats are present in a project's action area.

Other mist-netting efforts in and near the ANF included a survey conducted in 2001 in association with a proposed natural gas pipeline project. During that survey effort, mist-netting was conducted at 100 sites along the proposed pipeline right-of-way, which extends from the Pennsylvania-Ohio State line in Lawrence County (near the North Fork Little Beaver Creek) east to Clinton County, Pennsylvania (near the town of Tamarack). The pipeline goes through portions of Lawrence, Butler, Armstrong, Clarion, Jefferson, Elk, Forest, McKean, Cameron, Potter, and Clinton Counties, Pennsylvania. Portions of McKean, Forest, and Elk Counties occur within the ANF proclamation boundary. Out of the 100 sites surveyed, 12 survey sites were located within the ANF. No Indiana bats were captured at any of the survey sites.

Environmental Baseline

The environmental baseline for the ANF was established and described on pages 7-12 and 42-44 in the programmatic BO. Since issuance of the BO, the environmental baseline on the ANF has changed as follows.

*Factors Affecting the Species' Environment (on the ANF)*

The percentage of trees in the 90 years and older age classes has increased, and includes a 6.8% increase in trees in the 90-109 year-old age class, and an increase of 9.6% in trees 110 years and older. Conversely, trees in the 60-89 year age class have decreased by 4.3%. Additionally, there has been a decrease of 9.9% in trees in the 20-59 year age class and a 2.1% decrease in under-stocked savannahs and openings. Stands in the 0-19 year age class have increased slightly (0.2%). Other changes relate to a decrease in timber harvest between 1998 and 2001. The average timber harvest on the ANF has decreased from an average annual harvest of 7556 acres between 1986 and 1997, to 2557 acres between 1998 and 2001. This represents a 66% reduction in timber harvest since 1997.

Although the amount of timber harvest has been reduced in the last five years, the mix of timber harvest practices has remained relatively unchanged. Of the 2557 acres harvested annually on the ANF between 1998 and 2001, an annual average of 789 acres (31%) involves thinning and salvage treatments, 175 acres (7%) includes uneven-aged management (i.e., group and individual tree selection), and 902 acres (62%) were associated with even-aged regeneration harvest techniques (e.g., shelterwood seedtree harvest, removal cutting and clear-cutting). Although the amount of timber harvest has been reduced since 1997, reforestation treatments have not changed appreciably. Since 1998, the average annual amount of reforestation (herbicide application, site preparation, TSI, fencing, planting, fertilization, release) that has occurred on ANF has been 4818 acres. The average annual amount was 4469 acres between 1986 and 1997.

Activities that benefit wildlife such as prescribed fire, tree and shrub planting, opening construction, and shrub and tree release have decreased from an average annual amount of approximately 2200 acres between 1986 and 1997, to an average annual amount of approximately 1600 acres since 1998. This represents a 30% reduction in the total amount of wildlife and fish habitat improvement work that has been completed annually across the ANF since the programmatic BO was issued.

There has also been a reduction in the amount of road work completed on the ANF. New road construction has dropped from an annual average of 13.7 miles between 1986 and 1997, to an annual average of 0.1 mile of new road construction since 1998. Road reconstruction has had a similar reduction, and road betterment has dropped from an average annual of 10.1 miles from 1986 to 1997, to an annual amount of 0.1 mile between 1998 and 2000. Since 1998, the average annual amount of road restoration has been 36.9 miles, which represents a 22% reduction in annual road restoration over what was completed between 1986 and 1997 (46.8 miles per year).

*Status of the Species Within the Action Area*

Mist-netting surveys were conducted at 27 locations within the project area between 2001 and 2002. The sites were positioned within 0.5 mile of proposed timber harvest areas in the best available foraging habitat. No Indiana bats were captured, although five other species were caught. In July 2003, the ANF experienced a severe windstorm, which resulted in approximately 1548 acres of blow down and damaged trees (proposed for salvage treatments in the Spring Creek project). Because no mist-net surveys were conducted in these areas, three surveys in these wind-damaged areas are proposed for the 2004 field season. Due to presence of suitable roosting and foraging habitat in the project area, the Forest Service has assumed that Indiana bats are present.

The project area was evaluated to determine the amount and distribution of Indiana bat habitat. This is the area that would be expected to receive use, if an Indiana bat roost site occurred in a treatment stand. Based on this analysis, suitable habitat occurs on approximately 81% of the project area (BA, p. 15).

Effects of the Action

Forest Service analysis of the preliminary preferred alternative for the Spring Creek Project includes consideration of the assumed presence of Indiana bats and their habitat in the project area. The Fish and Wildlife Service anticipates that the proposed actions associated with the Spring Creek Project could result in the incidental take of Indiana bats through harm or harassment, especially if those activities occur when bats may be present (i.e., between April 1 and September 30).

Activities associated with this project that may result in incidental take of the Indiana bat include: 5627 acres of timber harvesting, six acres of forest removal for trailhead construction, eight acres of forest removal for gravel pit expansion/construction, and 0.2 acre of tree removal for snowmobile trail construction. In total, 5642.2 acres of forest will be cut or harvested between 2005 and 2025. Within the project area, these activities will result in a 1% reduction in the total available suitable roosting and foraging habitat for Indiana bats. The amount of optimum roosting and foraging habitat will be approximately the same under the preferred alternative as it is under the present condition (BA, p. 23).

The types of timber harvest activities proposed were described on pages 7-8 of the programmatic BO. The potential direct and indirect effects to the Indiana bat from harvest or removal of trees due to timber harvesting and trail construction are consistent with those identified and evaluated in the programmatic BO (pp. 46-48, 51, 65-66), and are hereby incorporated by reference. The types of road construction and maintenance activities were described on page 9 of the programmatic BO. The potential direct and indirect effects to the Indiana bat from these types of activities are consistent with those identified and evaluated in the programmatic BO (pp. 47-48), and are hereby incorporated by reference. Minimization of adverse effects will be addressed by implementation of the project-specific conservation measures, as described in the "Proposed Action" section of this opinion.

The salvage of wind-thrown trees was not specifically evaluated or discussed in the programmatic BO; therefore, incidental take for this specific type of harvest activity was not estimated in the programmatic BO. Unlike most salvage harvests on the Forest, which focus on the removal of standing trees that have been damaged by insects or disease, wind-throw salvage operations target trees that have been blown over or tipped to a leaning position by the wind. Even if the Forest Service took no action to salvage leaning trees, they would fall to the ground and become unavailable as potential Indiana bat roost trees within a few years. Although wind-throw salvage harvests will result in less of an effect on potential Indiana bat foraging and roosting habitat that the timber harvest activities discussed in the programmatic BO, the Forest Service has chosen to include wind-throw salvage harvests proposed for the Spring Creek project under the take categories in the programmatic BO (e.g., thinning, shelterwood removal).

As described in the Service's programmatic BO, we believe that adverse effects to the Indiana bat are likely to occur from timber harvesting and other tree-cutting activities under the Forest Service's management program activities. Therefore, given the nature of activities associated with the proposed project, we believe that incidental take of Indiana bats is possible within the study sites. However, we have concluded that activities associated with the Spring Creek Project

will not result in adverse effects to the Indiana bat beyond those that were previously disclosed and discussed in the Service's programmatic BO.

Cumulative Effects

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. The action area is the area where the direct and indirect effects of the federal action are anticipated to occur. Oil and gas development is likely to continue to occur within the action area, but the degree of development cannot be accurately projected at this time. The Forest Service does not hold most subsurface rights on the Allegheny National Forest. Development of oil and gas resources depends on market conditions, and the economic status of the companies that develop these resources.

Conclusion

The actions and effects associated with the proposed Spring Creek Project are consistent with those identified and discussed in the Service's programmatic BO. After reviewing the size and scope of the project, the environmental baseline, the overall status of the Indiana bat, the effects of the action, and the cumulative effects, it is the Service's biological opinion that the proposed action is not likely to jeopardize the continued existence of the Indiana bat.

This project has not resulted in a jeopardy determination because: 1) the project's impacts are consistent with those identified and discussed in the programmatic BO; and 2) the Forest Service has proposed to implement project conservation measures to minimize take, including Forest Plan standards and guidelines, and the terms and conditions from the programmatic BO.

Incidental Take Statement

This biological opinion is based on likely adverse effects to the Indiana bat from the removal of suitable foraging and roosting habitat during timber harvesting and other activities within the Spring Creek Project area. This Tier 2 BO identifies the incidental take anticipated due to implementation of the Spring Creek Project (Alternative 3 with Alternative 2 recreation activities), and the cumulative total of incidental take, which has occurred (Table 2).

Consistent with the approach taken in the programmatic BO, incidental take for this species is measured indirectly as loss or alteration of forested habitat (in acres), as outlined in Table 2. Thus, implementation of the preferred alternative will result in the take of Indiana bats, as measured by the loss/alteration of 5642.2 acres of forested habitat between 2005 and 2025. This take is counted toward the cumulative annual incidental take as outlined in the programmatic BO (Table 6, p. 67).

The actual incidental take reported by the Forest Service (fiscal years 1998 through first quarter 2004), has consistently been far below the annual levels estimated (authorized) in the programmatic BO (see Table 2). Therefore, we do not anticipate that implementation of this project will cause the take levels in the programmatic BO to be exceeded.

Table 2. Actual vs. authorized incidental take (as measured indirectly by acreage) due to the removal or disturbance of potential Indiana bat habitat on the Allegheny National Forest

| Activity | Acres Actually vs. (Authorized to be) Removed/Disturbed | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **FY 1998** | **FY 1999** | **FY 2000** | **FY 2001** | **FY 2002** | **FY 2003** | **FY 2004[1,2]** | **Total[3]** |
| **Trail Construction** | | | | | | | | |
| • Pedestrian | **.3** (0) | **7.8** (8) | **.3** (2) | **.2** (2) | **0** (2) | **0** (2) | **0** | **8.6** (16) |
| • Motorized - winter | **.3** (4) | **3.6** (0) | **0** (4) | **.6** (4) | **0** (4) | **0** (4) | **0** | **4.5** (20) |
| • Motorized - summer | **6** (0) | **1.2** (0) | **3.2** (4) | **2.14** (4) | **0** (4) | **0.42** (4) | **0** | **12.96** (16) |
| **Timber management** | | | | | | | | |
| • Clearcut | **191** (220) | **222** (220) | **0** (420) | **59** (220) | **6** (220) | **0** (220) | **0** | **478** (1520) |
| • Shelterwood seed/ prep | **1558** (1640) | **521** (1640) | **299** (4000) | **395** (2000) | **575** (2000) | **518** (2000) | **57** | **3923** (13,280) |
| • Shelterwood Removal | **1203** (1864) | **573** (1864) | **488** (1864) | **843** (1864) | **381** (1864) | **617** (1864) | **103** | **4208** (11,184) |
| • Thinning | **1526** (3225) | **732** (3225) | **240** (7000) | **659** (3225) | **988** (3225) | **692** (3225) | **35** | **4872** (23,125) |
| • Selection cut | **458** (334) | **184** (334) | **17** (700) | **40** (800) | **63** (800) | **0** (800) | **90** | **852** (3768) |
| **Wildlife Habitat Management** | **10** (10) | **7** (10) | **4** (10) | **0** (10) | **0** (10) | **5** (10) | **0** | **26** (60) |
| **Prescribed burning** | **0** (40) | **10** (40) | **3** (40) | **0** (40) | **0** (40) | **0** (40) | **0** | **13** (240) |
| **Roads** | | | | | | | | |
| • Construction | **0** (1) | **0** (0) | **0** (73) | **1** (55) | **2** (55) | **0** (55) | **0** | **3** (239) |
| • Reconstruction/ Betterment | **0** (0) | **0** (0) | **0** (55) | **4.44** (55) | **2** (55) | **0** (55) | **0** | **7** (220) |
| • Restoration | **2** (2) | **3** (3) | **4** (3) | **2** (3) | **1** (3) | **3** (3) | **0** | **15** (17) |
| **Oil and Gas Development** | **149** (149) | **206** (112) | **259** (112) | **236** (112) | **194** (112) | **152** (112) | **0** | **1196** (709) |
| **TOTALS** | **5104** (7489) | **2471** (7456) | **1318** (14,287) | **2244** (8394) | **2212** (8394) | **1987** (8394) | **285** | **15,619** (54,414) |

[1] Actual take through the first quarter of fiscal year 2004.

[2] Although carry-over of un-used incidental take from previous fiscal years has been authorized, incidental take cannot exceed the activity-specific levels for FY 2003, or the activity-specific total.

[3] Total actual take (FY 1998-1st quarter FY 2004) vs. authorized take (total estimated in Forest Plan BO)

Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of the Indiana bat.

1. Ensure that conservation measures are implemented to minimize adverse effects to federally listed species.

2. Ensure that activities that were not addressed in the programmatic BO (i.e., construction of recreational facilities), or that exceed effects disclosed in the programmatic BO (i.e., trail construction), are seasonally restricted to avoid potential adverse effects to the Indiana bat.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, the Forest Service must comply with the following terms and conditions, which implement the reasonable and prudent measures described above, and outline reporting and monitoring requirements. These terms and conditions are non-discretionary.

1. Implement project conservation measures (as detailed on pages 18 and 19 of the BA; and pages 6-7 of this BO).

2. Conduct three additional mist net surveys in the proposed salvage harvest areas where no mist net surveys have previously been completed. Submit survey results to the Fish and Wildlife Service for review.

3. Continue to report incidental take to the Fish and Wildlife Service quarterly.

4. Carry out all tree cutting associated with the ATV campground and equestrian trial (with the exception of the trailheads) between October 1 and March 31, when Indiana bats are hibernating or concentrated near their hibernacula.

Reinitiation Notice

We would like to remind you that, in accordance with our June 1, 1999, biological opinion, and the June 1, 2000, amendment to that opinion, incidental take that occurs as a result of this and other projects on the ANF cannot exceed the annual or cumulative incidental take levels established in the programmatic biological opinion. If implementation of any project or projects is anticipated to exceed these take levels, further consultation will be necessary. To ensure that incidental take is not exceeded, quarterly reports should continue to be provided to this office tabulating the amount of incidental take (as it occurs) on projects being implemented throughout the Forest, as indirectly measured by acres affected. In addition, you should be aware that this project may be subject to further consultation pending the outcome of future consultations on the Forest Plan or Forest Plan amendments.

Should new information reveal that the agency action may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; or the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or a new species is listed or critical habitat is designated that may be affected by the action; or the amount or extent of take as identified in Table 2 is exceeded, reinitiation of formal consultation as outlined in 50 CFR 402.16 is required.

If you have any questions regarding our response, or if you need additional information, please contact Jennifer Dombroskie of my staff at 814-234-4090.

Sincerely,

David Densmore
Supervisor

## LITERATURE CITED

Romme, R.C., K. Tyrell and V. Brack, Jr. 1995. Literature summary and habitat suitability index model: components of summer habitat for the Indiana bat, *Myotis sodalis*. Report submitted to the Indiana Department of Natural Resources, Division of Wildlife, Bloomington, Indiana by 3D/Environmental, Cincinnati, Ohio. Federal Aid Project E-1-7, Study No. 8, 38 pp.

cc:
Project file
Readers file
ES file:  ANF - Mini-BO
ES:PAFO:Jdombroskie:ckc: 04/29/04
Filename:  Spring Creek MBO_042904.doc